

## 11

FIG. 8 is a block diagram 70 of one embodiment of a method of treating Peyronie's disease. The method of treatment includes at 72 evaluating the size of the Peyronie's plaques affected area of a penis. The method of treatment includes at 74 selecting an implant 20 having reinforcing components 22 providing column strength to the implant 20 and sheet components supporting the penile tissue and promoting new tissue ingrowth. The method of treatment includes at 76 subcutaneously attaching the implant to the tunica albuginea in an area of the penis where the Peyronie's plaques have been excised thereby supporting the exposed penile tissue and avoiding the curvature of the penis P. The provides at 78 supporting the penile tissue where the Peyronie's plaques have been removed.

## EXAMPLE

The following example illustrates, with reference to FIGS. 1C-1E, the surgical placement of one of the implants described above.

The patient is anesthetized and surgically draped to define a sterile operating field in an appropriate manner.

The surgeon forms a circumcoronal incision adjacent to the glans penis and a penoscrotal incision adjacent to the base of the penis P. The dartos fascia is reflected to expose the Buck's fascia, and the Buck's fascia is incised down to the tunica albuginea.

The surgeon excises the Peyronie's plaques, or scar tissue, from the affected area of the penis P.

After having evaluated and picked the required size and shape of the implant 20, the surgeon proceeds to attach one of the above-described Peyronie's treatment implants to an exterior surface of the tunica albuginea on an affected area of the penis on which the Peyronie's plaques have been excised.

In one embodiment, an artificial erection is imparted to the penis P with an intracavernous injection of saline solution before attaching the implant 20 to the penis P. In other embodiments, the implant 20 is attached to the penis P while the penis is its flaccid state.

As a result of the excision of the Peyronie's plaques, the curvature in the penis P on the plaque's affected side is reduced or eliminated. In order to maintain the penis P in this straightened condition, the implantation and attachment of the implant 20 to the penis P, provides support to the penile tissue in at least some of the area where the plaque's have been excised and provides flexibility and strengthens the column strength of the implant 20 in a direction parallel to, or along, the penis P. In this manner, the Peyronie's treatment implant provides support and strength to the penile tissue so that the corrected curvature of the penis P can be maintained.

The Peyronie's treatment implant provides an implant 20 that reduces or eliminates the formation of fibrosis tissue, or Peyronie's plaque. The implant is providing a biocompatible implant that has a high degree of flexibility and increased strength. The implant does not need subsequent surgical removal or substitution because it is accepted by the user's body and furthermore has improved strength, sustainability and durability.

This provides an implant that allows for tissue reconstruction and is less bulky and consequently less strenuous on the surrounding tissue of the penis once implanted. The implant eliminates or reduces the physical effects of the Peyronie's disease and improves patient perception and comfort.

Although specific embodiments have been illustrated and described herein, it will be appreciated by those of ordinary skill in the art that a variety of alternate and/or equivalent implementations may be substituted for the specific embodi-

## 12

ments shown and described without departing from the scope of the present invention. This application is intended to cover any adaptations or variations of medical devices as discussed herein. Therefore, it is intended that this invention be limited only by the claims and the equivalents thereof.

What is claimed is:

1. A method of treating Peyronie's disease through implantation of a supporting structure in a penis suffering from a Peyronie's plaques affected area, the method comprising:

forming an incision in the penis and accessing the Peyronie's plaques affected area;  
excising plaque out of the Peyronie's plaque affected area and exposing tissue of the penis;  
placing an implant on the exposed tissue of the penis, with the implant having a sheet component attached to a reinforcing component;  
positioning the implant allowing for tissue ingrowth into the sheet component and providing column strength to the exposed tissue of the penis with the reinforcing component of the implant;  
securing the implant subcutaneously to the penis; and  
closing the incision.

2. The method of claim 1, comprising securing the implant subcutaneously to the penis by suturing a suture line to subcutaneous tissue of the penis, with the suture line connected to the reinforcing component of the implant.

3. The method of claim 1, comprising securing the implant subcutaneously to the penis by suturing a suture line to subcutaneous tissue of the penis with a needle that is detachable from the suture line.

4. The method of claim 1, comprising securing the implant subcutaneously to the penis by suturing a suture line to subcutaneous tissue of the penis and anchoring the implant to the subcutaneous tissue of the penis with anchoring barbs distributed along the suture line.

5. The method of claim 1, wherein the reinforcing component includes a longitudinal rod secured to a transverse connector, and providing column strength to the exposed tissue of the penis with the longitudinal rod of the implant.

6. The method of claim 1, wherein the sheet component includes a tissue-ingrowth promoter, the method further comprising:

promoting tissue ingrowth into the sheet component with the tissue-ingrowth promoter.

7. The method of claim 1, wherein the sheet component is formed of mammalian tissue, the method comprising placing the sheet component formed of mammalian tissue on the exposed tissue of the penis.

8. The method of claim 1, wherein the sheet component is formed of synthetic material, the method comprising placing the sheet component formed of synthetic material on the exposed tissue of the penis.

9. The method of claim 1, comprising placing an implant on the exposed tissue of the penis, with the implant having a sheet component formed of pericardium tissue.

10. The method of claim 1, comprising placing an implant on the exposed tissue of the penis, with the implant having a sheet component secured between reinforcing components.

11. The method of claim 1, comprising placing an implant on the exposed tissue of the penis, with the implant having a skeletal framework including a sheet component attached to a reinforcing component;

supporting the exposed tissue of the penis with the sheet component;

providing column strength to the exposed tissue of the penis with the reinforcing component of the implant while allowing for elongation of the implant during an